

ABSTRACT

5 The present invention: relates to a grain-oriented
electrical steel sheet and a double-oriented electrical
steel sheet which are used as soft magnetic materials for
electrical machinery and apparatus; and is a grain-
oriented electrical steel sheet extremely excellent in
film adhesiveness, characterized by: containing, in mass,
2.5 to 4.5% Si, 0.01 to 0.4% Ti, and not more than 0.005%
10 as to each of C, N, S and O, with the balance
substantially consisting of Fe and unavoidable
impurities; and having films comprising compounds of C
with Ti or Ti and one or more of Nb, Ta, V, Hf, Zr, Mo,
Cr and W on the surfaces of said steel sheet, and a
15 method for producing the steel sheet.